

INVESTIGATION OF A HORSE ATTACK IN BERRIEN COUNTY, MICHIGAN

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Background And Methods

A 20-year-old, adult horse was attacked during a rainstorm on the night of November 26 or early morning of November 27, 2005 in northern Berrien County, Michigan. The attack occurred in a pasture in a rural, wooded area where the horse was boarded by an owner who lives elsewhere. Upon discovering the horse with severe wounds in the head and neck area around 3:00 a.m., the landowner summoned Dr. Mark Johnson of Berrien Veterinary Services. Dr. Johnson determined that the horse could not be saved and euthanized the animal after photos were taken by the landowner. A Berrien County Sheriff's Department Officer and Conservation Officer Michael McGee of the Michigan Department of Natural Resources arrived at the site, saw the dead horse and viewed the photographs. The horse was then buried on the same property where the attack occurred. According to the landowner, Mr. McGee told him one or two days later that the horse was likely attacked by coyotes. The landowner was advised by Dr. Johnson that after he (Dr. Johnson) had considered the wounds on the horse he believed a large cat may have been the attacker. The landowner contacted the Berrien County Animal Control Office on December 1, 2005. After reviewing the photos, learning of Dr. Johnson's comments, and discussing the horse's wounds with wildlife officials of the Montana Fish and Game Department, the Sheriff's Department and Animal Control Office both requested, on December 2, assistance from the Michigan Wildlife Conservancy.

The horse was exhumed on December 9 by County personnel under direction of Animal Control Office Director Val Grimes and myself. The carcass had been covered with approximately two feet of sand and was accidentally hit by the backhoe's bucket. I immediately painted marks left by the backhoe (and later repainted them) so they could not be confused with injuries caused during the attack. Because very cold weather had followed the attack, the carcass had not decomposed significantly. Blood flowed from the nasal cavity as the animal was lifted out of the ground. I inspected the horse at the burial site and noted claw marks on the head of the horse and left front leg. The landowner's wife pointed-out a few partially-healed marks on the rear legs and side area that had been made by bites from another horse previous to the attack. The carcass was then taken to the Berrien County Maintenance Facility in Stevensville.

At approximately noon on December 9, about 90 minutes after the horse was exhumed, Dr. Johnson and I began a detailed examination of the horse. It was conducted indoors in the presence of more than 15 individuals including Sheriff's Department and Animal Control Office staff, television and newspaper reporters, and a veterinarians' assistant

from Berrien Veterinary Services. All significant aspects of the necropsy were documented on film. Still photos were also taken.

Findings And Conclusions

Dr. Johnson and I noted that all visible injuries were confined to the head, neck, and left front leg of the horse. (Later in the examination, I skinned the right hindquarter, in part to verify that we did not overlook any injuries to the hind part of the horse.) A tooth puncture mark was evident at the top of the neck about 10 inches from the base of the skull. Nearly all other damage to the horse was done forward (toward the horse's nose) of this puncture. Exceptions were claw marks on the left front leg and some hemorrhaging in the throat area that was evident when the horse's neck and head were later skinned. Despite severe and extensive tissue damage, especially on the right side of the horse's face, several clear and distinct sets of claw marks were visible. Two sets, one in the lower jaw area and one on the face, revealed four distinct parallel scratches that measured 3-3/4 inches across. Several of the other claw marks revealed penetration through the horse's hide and considerable associated tissue damage.

The tooth puncture at the top of the neck appeared to penetrate up to 1-3/4 inches, but did not reach the spinal cord. There was another puncture mark about four inches forward and slightly lower on the neck that penetrated 1/2-3/4 inch; it was consistent with damage made by a claw. It was associated with shallower-penetrating claw marks. At the top of the neck near the base of the skull, there was a hole through the hide that appeared to be a tooth mark. However, penetration was only about 3/4 inch deep and there were claw marks in the vicinity. We could not determine with certainty whether the mark was made by a tooth or claw. The right ear of the horse was severely torn and there was a puncture mark (either tooth or claw) at the upper base of the ear. A tooth puncture wound through the bone above the right eye was evident (bone was shattered somewhat). There was tissue damage about 1-3/4 inches lower (and slightly forward), but no distinct tooth mark was visible. A rectangular-shaped bone puncture was visible several inches forward of that area. This part of the horse's face had no intact skin or tissue; we could not align the skin so as to follow penetration of a tooth or claw through the skin and flesh into the bone. We could follow the penetration of a tooth through three other holes, two in the lower jaw that represented separate bites, and one in the upper jaw. There were also two punctures in the upper part of the tongue; however, I could not verify they were made by the attacker. The horse was clearly seized by the snout as there was severe damage in this area and tooth penetration through bone. The bite was delivered with considerable power and drove one of the horse's upper canine teeth out of its normal position.

Hemorrhaging had occurred along the throat area, but we could find no evidence of deep tooth punctures there. The trauma there appeared to have been done by claws as was the case with most of the extensive skin and tissue damage in the face/head area.

The clear and distinct claw marks, width of the claw mark sets, location of the bite marks, and severe nature of the injuries all indicate that the horse was attacked by a cougar (mountain lion) (Childs 1998, Shaw 1990.). The injuries and marks were inconsistent

with an attack by a coyote, dog, wolf, or bear. These predators would likely have attacked the rear of the horse as well as the neck/head area. These animals do not have thin, sharp claws of the type that caused the marks on the horse. The horse did break through an electric fence during or after the attack; however, marks possibly attributable to that or any other collision could not have been confused with the obvious claw marks and bites.

Literature Cited

Childs, J. L. 1998. Tracking the fields of the borderlands. Printing Corner Press, El Paso, TX. 77 pp.

Shaw, H. G. 1990. Mountain lion field guide. Spec. Rept. 9, Arizona Game and Fish Dept. 47 pp.